# Improving the Health of the Public by 2040 Workshop – July 2017

Chaired by Professor Dame Anne Johnson

NHS
Health Education England

msc Medical Schools Council
For the future of medicine

The Academy of Medical Sciences

General Medical Council

## Context

The Academy of Medical Sciences has undertaken a project exploring how the UK's research environment needs to adapt to meet the health challenges the population will face by 2040. Public health research has provided fundamental insights into human health and how it can be improved, but we are yet to understand the long-term impacts of many of the wider drivers of health.

The *Improving the Health of the Public by 2040* report, published in September 2016, makes a series of recommendations, including around future training programmes and future capacity, specifically for research in the health of the public. The report takes a broad view on the determinants of the health of the public, extending beyond the biomedical sphere and one that is driven by a myriad of other important drivers, including socio-economic and environmental drivers. It is vital to bring together research which is transdisciplinary and which feeds all the way from the socio-economic determinants of health, through what we do in the NHS. This has significant implications for both how we train people for future research careers, but also how we train them as clinicians and practitioners in medicine, dentistry and many of the allied healthcare professions.

## Response to the publication

In response to the publication of the Academy of Medical Sciences report, the Medical Schools Council (MSC), in collaboration with Health Education England (HEE), General Medical Council (GMC) and the Academy of Medical Sciences organised a workshop to bring together key organisations and professionals in medicine, dentistry, pharmacy and nursing to share good practice and start the transformation in the education of health professionals. The workshop was chaired by Professor Dame Anne Johnson, FMedSci, Chair of the Working Group of the Academy's report.

MSC invited abstracts describing good practice in basic health professional training pertinent to improving the health of the public and abstracts highlighting good practice in the teaching of professionalism. Eight abstracts were selected for presentation at the workshop, including health coaching, peer education around anti-microbial resistance, health promotion in undergraduate medical education and a student-led initiative to include LGBT health in the medical curriculum.

## Debate chaired by Professor Dame Anne Johnson, Academy of Medical Sciences- How do we kick start the transformation?

**Professor Sir Al Aynsley-Green**

- Health is very important in education
- HEIs must be role models for students
- Staggering inequalities in medicine. 80% of doctors from 20% of schools and only 4% of our doctors come from disadvantaged backgrounds- significant issue for selection
- Important to work in collaboration for doctors to understand real-life problems

- Demographic changes- who has the responsibility to initiate change? An ageing population will require greater spending on healthcare
- UK's outcome for the health of our children are way behind our neighbouring countries in the EU
- Tripartite focus: Attitude change – bunkers and silos; inequalities -developing a workforce that is representative of population it serves; and a life course approach- cradle to grave (poor children and where does this fit into our education programme?

**Professor Anita Berlin, Queen Mary University London**

- Students today will be working in a very fractured and unstable health system- have to be equipped with different conceptual principles
- Medicine is hugely influenced by politics and ideology at the population and health system level
- Need to find ways of engaging students into this discussion
- How do we take a report and apply this to the curriculum? Difficult to get evidence on educational intervention that works. Need to learn from experience.
- Future students need to be advocates of health and competencies alone are not enough- potential exploitation of third sector cropping up into mainstream. We do not have a way to fund the third sector.
- Institutional ethos: HEIs are enterprise/commercially driven organisations concerned about their bottom lines. This needs to be offset by clear social accountability agenda.

**Professor Pali Hungin, British Medical Association**

- On an international level, UK health sector is performing relatively well, but ultimately the system is not working.
- NHS cannot survive in its current model- current role of doctors is unsustainable
- The relationship between doctors, patients and the public is changing- patients will increasingly see themselves as customers and consumers - issues with the amount of time doctors spend with patients for effective delivery of care
- It is imperative for medical schools to work out the direction of change (e.g. from technology development and social shift) and how educational programmes can be reinvented

**Dr Colin Melville, General Medical Council**

- The Medical Act 1983 outlines the purpose of the General Medical Council- to protect, promote and maintain the health, safety and well-being of the public. It is not solely a patient safety organisation
- The future population will be living in rural communities where there will not be any doctors- it is therefore counter-productive to maintain doctors in cities?
- There are educational opportunities. GMC has created a foundation for educational transformation –GMC's generic professional capabilities framework, more

flexibility and adaptability for career pathways. The GMC curriculum approval now requires a workforce approval i.e it's required for patient care not just because doctor X wants to be a specialist.

- GMC will be reviewing the outcomes for graduates later this year -how do we shift the emphasis away from a dominant secondary care view into a more even-handed view of wellness, primary and secondary care
- To what extent should the regulator influence medical curricula? How do we select the right people to do medicine in the future?
- How do we get diversification of recruitment?
- The GMC currently set outcomes for undergraduates but do not interfere with undergraduate and post-graduate curricula – should the regulator interfere more with the curricula? How do we maintain CPD throughout the life-span of a doctor?
- Potential issues with recruiting the right people who have an active interest in improving the health of the public – do we need to shift focus of those whom we recruit?
- Why now? What's changed since, for instance, the 2010 Lance Commission?

**Feedback from Q&A: What is different now than what was said in 2010?**

- We are aware of medical education and public health but difficulties arise when attempting to influence students and parents
- A lot of efforts are countered by the establishment and previous generation of doctors
- Curriculum reviews are beneficial but often hard to initiate – need to tackle it at grassroots level
- Medical education is becoming more expensive-BMA criticised plans by government (DH consultation on expanding the medical workforce) which proposed that doctors should work in the NHS for at least five years after completing their training in an effort to increase the supply of "home-grown" clinicians
- Social attitudes have changed since 2010- paradigm shift in attitudes
- Older doctors have learned about old diagnoses and there is no justification to be working with outdated diagnoses
- The regulator has a role in horizon scanning and contributing for example to shift emphasis to primary care
- Many of the current issues were being discussed as far back as two decades ago, but it was much harder to push these issues on the agenda. There was a consensus amongst many professionals and stakeholders that students should not be driving these issues, whereas now students should be encouraged to contribute and shape discussions- student involvement is paramount to drive change and push the agenda forward
- Learning from the international world- for example social accountability of medical schools in Canada. Aspire award for medical education – one award in UK compared to five-six worldwide. How do you measure social accountability?

- The responsibility to kick start transformation must not lie with the health service alone -determinants of health must involve a tight inclusion with health and social care, youth justice etc.
- An example was given from The University of Newcastle in which a medical student was paired up with an expectant mother and followed the mother's journey throughout their time at university during which time students were exposed to the social determinants of health –"longitudinal clerkship" model of education
- Need to emphasise qualities and skills of doctors – interface with patients
- Health responsibility is collective
- Artificial intelligence - however people will still need human help by registered healthcare professionals. The healthcare profession must be more optimistic about developments in AI
- GMC will have a considerable amount of influence in the content of future curricula through the MLA. Should the GMC be more focused on the institution of medicine, and the role of medical schools in terms of their social accountability, rather than interfere with the broader details of education.
- Need clinicians who can engage with data science
- Move beyond medicine to consult and work with town planners, economists etc.
- Those in F1 and trainees want to be future doctors now, however a common frustration is that the system does not reward those who wish to advocate public health. Cannot be 'future' doctors because working in an old system with an outdated curriculum
- Students look forward to interacting with patients- the core values do not change
- Patient expectations and patient demand have changed- more ethical dilemmas, managing business of dentistry - need to highlight realities of daily general dental practice
- Make learning a more integral part of the curriculum
- Life course approach to learning and teaching – intersectoral approach – there is appetite for looking at the selection criteria again for students. A commonly asked question for prospective students is 'Why do you want to become a doctor', however students are discouraged from saying they want to help people. Why is this viewed as a negative response?
- We need to keep driving change and a lot of it is about innovation. We need to break the mould to kick start the transformation
- Professions are not concerned with boundaries between their profession and another
- Levers on two sides - levers of curriculum transformation (those who have positions of responsibility) and levers of assessment (not just about what we reward in medical schools but in what we assess as being more useful in the profession more generally)
- Role models and student feedback- talk about ageing population and powerful people in profession – who gets the real reward in the healthcare sector? Redesigning the sector -> innovation -> curriculum transformation
- Why is patient sick? Genome, medical history (hereditary and population risk). What can I do to prevent the patient getting sick? Identify early diagnoses, mitigate it, change the clinical method and treat. Introduce elements of prevention

- Involve patient and public in the education.
- GMC does have a role in being innovative about standard setting and regulation – they can facilitate plurality and intersectoral working.

## Good Practices Workshop: Developing and Implementing Action Plan

**Recommendation 3: Training Pathways in Informatics**

We recommend that higher education institutions and key research funders (such as Research Councils and Wellcome) further enhance training pathways in informatics for health that are open to a wide range of disciplines. The aim should be to build a critical mass of expertise in the UK to process and analyse the full range of available data now and in the future to understand and improve the health of the public.

***Actions**:* OSCEs and competencies; allowing for open book exams; fix foundations of medicine; maintain element of choice/optional selected modules; introduce informatics longitudinal from first year

***By Whom**:* Not traditional specialties setting competencies/check boxes; wider community and MSC; needs GMC involvement as all schools need to change together; MLA- it only being multiple choice/OSCE- introduce some health of the public lectures/OSCE into it

***Priority Order**:* 1) Consult – what are the necessary core competencies? (Patient and Public Engagement) 2) Take things of the curriculum? Open book finals? 3) Choice- embrace difference in pathways? Modular medical degrees (GP pathway and Surgical pathway) 4) Co-ordinate assessments so that they align with the types of doctors we want to produce, including selection processes – Who is best places to address the priority health needs of the population being served

***Timescale**:* Keep it simple. Consultation (12months); Call (1-2 years – can be tough negotiating changes to curricula)

**Recommendation 4: Role of Higher Education Institutions**

We recommend that higher education institutions:

1. Incorporate opportunities for learning about health in a wide range of disciplines relevant to the health of the public
2. Incorporate these broader disciplines into public and population health courses
3. Consider mechanisms for building joint modules between public and population health and these other disciplines to foster transdisciplinary approaches to learning and research

***Actions***: Professional bodies must talk and collaborate- no silos. GPhC, NMC and GMC and the public.

- Consult public and healthcare professionals on what is needed in order to set standards

- Interpersonal learning at early stage
- Collaboration with other disciplines need strong institutional support
- Student-led rather than top-down
- Challenge of combining very different disciplines recognised
- Bespoke, local model the best way forward?
- Common standards: Professional Standards Authority
- IPL: Regulators: Individual professionals and university as a whole
- Paradigm shift: run through all years of undergraduate curricula. Students and healthcare professions should have a bigger role in promoting wellbeing to schools/young people
- Learn together before inter-professional experiences
- Set standards and expectations (from the public)
- Issues associated with behavioural changes- these bodies do not necessarily interact with social care/third party organisations (need to cement the bodies as a whole to ensure universal standards).

***Priority Order***: 1) Public Consultation 2) Adoption
***Timescale:*** Quick! Must match changing public health

**Recommendation 5: Training of Health and Social Care Practitioners**

We recommend that, through education and training, health and social care practitioners are:

1. Better equipped with an understanding of the drivers and interventions that affect the health of the public and the relevance to their practice
2. Able to engage with research and evaluate and use evidence

This should be taken forward by the relevant training and regulatory bodies for each of the professions, such as the Faculty of Public Health for public health professionals.

***Actions:*** MSC and GMC should undertake a review of competencies. Remove parts of the curriculum rather than add to it- this should not happen in silos, but should be subject to a wider public consultation. Choices for students should remain for example SSCs and pharmacology. In terms of assessments, there is a strong focus on multiple choice and OSCEs. Moving forward, we should think about how HEIs can engage and reward those undertaking these assessments. Open book exams should be discussed.

***Priority Order:*** 1) Review of competences
2) Discussions and public consultation around assessment methods
***By whom:*** Regulatory bodies for each of the professions
***Timescale****:* 1-2 years

**Recommendation 5.2: Wider role of Universities in Health of Public**

We recommend that higher education institutions and their medical schools should develop and maintain intercalated BSc, Masters and MB-PhD degrees in the health of the public to encourage further study and develop further capacity in this area.

***Actions:*** How will these programmes be funded? Cost taking on individuals will limit uptake and access. Link between university and health providers. TEF could provide incentivisation for certain programmes. Schools held to account for delivering on needs of public. HEE learning outcomes surrounding PhD and Masters programmes. Any health core curriculum should be teaching health and wellbeing in local area. University should have a strategy for students to do this. Royal colleges in undergraduate space? Cross professional organisation for training in this area. Shared accreditation. Establish consensus of what the health of the public should look like. Different disciplines involved in the health of the public. Courses should therefore reflect this and be multi-disciplinary

Work should be done in collaboration with local health providers and should not stay within academia bubble. There may be incentives for medical students but not necessarily the case in Dentistry or Pharmacy. In Pharmacy, no real incentive for intercalation. Incentivisation might involve different forms of assessment. Where in the curriculum do we put in public health? Move public health into more clinical aspects of course? Do we treat public health as a general area? Wider role of universities in health of local communities – how can large city campuses adopt the sustainability agenda and affirm a public health agenda?

***Priority Order:*** All HE institutions should have a social responsibility strategy and be evaluated on their success – part of this is health of the public in all programmes. HEFCE, GMC, MSC, HEA

***By whom:*** Interdisciplinary body could be set up? Many current regulatory bodies and learned institutions may not capture all health disciplines and social disciplines. Service users/public crucial to include, as well as local government.

***Timescale:*** A few years, broken down into milestones. 1 year for discussion and collaboration to take place.

**Recommendation 5.3: Research for All**

We recommend that, as proposed in the Royal College of Physician's 'Research for All', all doctors have appropriate grounding in research and in particular the core principles and methods of quantitative research that underpin health of the public research. All doctors should have the opportunities for long-term research throughout the course of their training, preferably linked to an academic department and further opportunities in the course of their continuing professional development.

***Actions:*** To decide whether all doctors need to be able to do research or to read papers to make a decision. What support do clinicians needs to set the answer to clinical questions?

Where does qualitative methods fit in? Students need to get involved in research, and not just learn about it. Need support to learn how to read papers. Financial support. Incentives for students. Integrating the health of the public into the curriculum, not an intercalated BSc. Removing research and statistical training further along (earlier) in the course and linking it more with clinical practice. Also think about qualitative aspect. Need more ways for people to dip in and out of research.

***Priority Order:*** Transdisciplinary health of the public approach to higher education. "Public health" in non- health courses as well.

***By whom:*** Public Health England, with support from central and local government; HEE; GMC/GPhC – setting standards; Higher Education Authorities

***Timescale:*** Circa 10 years

**By whom and timescale:**
**UG research training:** course director/timetabling/structure. 2019-20 at earliest. Required skills in the GMC MLA- 2020 onwards.
**Intercalated BSc:** student choice (taken on £9k debt); opportunity within medical school (or close by) for public health related projects (rather than lab) ; foundation application process to value research experience ( training programme + 2-3 years)
**PhD/ in-training research:** funders (many do not favour population health) ; opportunities (research capacity in all medical schools relevant to public health ; specific trans/multi/inter-disciplinary opportunities which requires initiative across research councils, possibly RUK.
**Research in/by/through on clinical practice:** what are expecting of the average clinician? What are we expecting of clinical leaders? Who will interface between clinical and population medicines? Who will advise policy makers? UG/PG training includes teaching in mechanics, not process of research – increase exposure to real research? Career track polarised – more opportunities to move in and out of research; current career track very focused on individual specialties and not suited to big health of the public questions
**Medical school level:** MSC and GMC- recommendations regarding timing of research methods training (clinical relevance)
**Post graduate training**: HEE -more flexibility in ST programmes to facilitate research. More formal training in research methods throughout ST programmes regardless of specialty (and not just for academic programmes)

**Recommendation 5.4: Development of credential**

We recommend that the Medical Royal Colleges, led by the Royal College of Physicians and the Faculty of Public Health, should establish a special interest group to develop a credential in health of the public research. This credential should encompass qualitative and quantitative research methods including health informatics and bioinformatics, clinical epidemiology and prevention, health economics, qualitative methodology, behaviour change, intervention methodology including the development and evaluation of complex interventions, and the wider determinants of health. Opportunities for credentialing should be provided for all trainees and not just those who wish to pursue a career in public health.

***Actions:*** A concept that needs to be clearer. Can credential be a qualification? Better addressed within UG and PG curriculum. Further clarification needed on the definition of 'all trainees' – does this encompass medics or academic trainees alone? The role of HEIs must be addressed, including the lack of collaboration between HEIs. Initiate a public consultation on concerns of public health. GMC, GPhC, RCN and other individual professional bodies to set a national standard in terms of delivery for public health. To utilise IPL at earlier stages before students undertake placements and to improve understanding earlier on. Research networks, MPHs and modules already available

***Priority Order:*** 1) Further discussions needed. Will the employer pay? 2) Focus on collaboration and institutional support – any kind of collaboration should be student-led 3) Transdisciplinary approaches- need more expertise amongst MDT teams (nothing is single discipline focused) 4)Address behavioural issues

***By whom:*** Faculty of Public Health working group *(* david.chappel@phe.gov.uk*)*

***Timescale:*** 3 years

**Concluding remarks:**

- Must embrace technology and its use for the public good
- Paradigm shift in healthcare presents the opportunity for change
- Need a better strategy to deal with health and social care
- We need to think of new ways of fitting public health in clinical areas and making appropriate changes to curricula
- Create a working group with MSC, GMC, HEE and AMS and a student body, Students for Global Health (formerly Medsin)
- Public health is broad: prevention; exercise; advocacy; dealing with social determinants not in one clinical specialty but throughout the whole healthcare sector
- Training of our healthcare professionals is shifting outside the acute sector
- Lack of effective advocacy for people in local government. It is the duty of doctors to advocate for patients.
- Offset the disaster by thinking of solutions!